

The Claims

1. (previously presented) A method of using an infrared reading to detect the misidentification of a diagnostic test strip having a plurality of marker fields configured to reflect light in a manner correlated to identification of the test strip, and having a plurality of test pads separate from said marker fields, said test pads having reagents thereon, said method comprising the steps of:

identifying the test strip by reading reflectances of one or more of the plurality of marker fields;

determining if the infrared reflectance of one or more of the plurality of test pads is within an acceptable predetermined range; and

determining that the test strip is misidentified in the event said infrared reflectance of one or more of the plurality of test pads is outside of the acceptable predetermined range.

2. (original) The method of Claim 1, further comprising the step of aborting the test if said infrared reflectances are not within said range.

3. (original) The method of Claim 1 wherein said reagents are leukocyte, glucose and albumin.

4. (original) The method of Claim 3 wherein said predetermined infrared reflectance range of said leukocyte reagent is from about 57.0 to about 73.0 percent infrared reflectance.

5. (original) The method of Claim 3 wherein predetermined infrared reflectance range of said glucose reagent is from about 75.0 to about 90.0 percent infrared reflectance.

6. (original) The method of Claim 3 wherein the predetermined range of said albumin reagent is from about 60.0 to about 75.0 percent infrared reflectance.

7. (original) The method of Claim 2 wherein said test will be aborted if said test strip is more than about 0.020" from a central location on a feed table or if said test strip is incompletely inserted by more than about 0.050".

8. (previously presented) An automated method of using an infrared reading to detect the misidentification of a diagnostic test strip disposed on a feed table, the test strip having a plurality of marker fields configured to reflect light in a manner correlated to identification of the test strip, and having a plurality of test pads separate from said marker fields, said test pads having reagents thereon, said method comprising the steps of:

identifying the test strip by reading reflectances of one or more of the plurality of marker fields;

determining if said test strip possesses specified reagents on the plurality of test pads;

locating the position of plurality of test pads on said strip;

reading the infrared reflectances from each of the plurality of test pads;

determining if said infrared reflectances are within an acceptable predetermined range; and

determining that said test strip is misidentified in the event said infrared reflectances are outside of the acceptable predetermined range.

9. (original) The method of Claim 8, further comprising the step of aborting said method if said infrared reflectances for one or more of said reagents are not within said predetermined range.

10. (original) The method of Claim 8 wherein said reagents are leukocyte, glucose and albumin.

11. (original) The method of Claim 10 wherein said predetermined infrared reflectance range of said leukocyte reagent is from about 57.0 to about 73.0 percent

infrared reflectance.

12. (original) The method of Claim 10 wherein predetermined infrared reflectance range of said glucose reagent is from about 75.0 to about 90.0 percent infrared reflectance.

13. (original) The method of Claim 10 wherein the predetermined infrared reflectance range of said albumin reagent is from about 60.0 to about 75.0 percent infrared reflectance.

14. (original) The method of Claim 9 wherein said test will be aborted if said test strip is more than about 0.020" from a central location on said feed table or if said test strip is incompletely inserted by more than about 0.050".

15. (previously presented) An automated method of reading a test strip for the analysis of one or more analyte(s) in a liquid test sample that comprises the steps of:

a) providing a test strip having a plurality of tests fields on its surface that reflects light at a specific range of wavelengths and at least two distinct marker fields on the same surface of said test strip as said test fields, said marker fields reflecting light at different ranges of wavelengths from each other and from said test fields in a coded sequence of ranges of wavelengths, said coded sequence correlates to information concerning identification of the test strip;

b) introducing said test strip into a strip reading device equipped with reading means for both said test fields and said marker fields, said reading means comprises a light source as transmitter and a light sensitive element as receiver, said receiver being capable of differentiating between said ranges of wavelengths at which said test fields and said marker fields reflect, said strip reading device also being equipped with means for correlating the coded range of infrared wavelength sequence of reflected light with preprogrammed information concerning said test strip, said correlating means being in operative communication with a receiving means, said reading device having means for moving said test strip and said receiving means relative to one another so that the

reflectance of said test fields and said marker fields can be individually read by said reading means;

c) allowing said ranges of wavelength values reflected by said test fields and said marker fields to be individually read by said reading means;

d) allowing said reading means to communicate said coded infrared sequence of spectral reflectance values reflected from said marker fields to said correlating means and allowing said correlating means to correlate said infrared sequence of reflected range of wavelength values with said preprogrammed information concerning said test strip;

e) allowing said reading means to communicate said reflected range of infrared wavelength values to said correlating means and allowing said correlating means to determine, for one or more of the reagents disposed on said test strip, if said reflected range of infrared wavelength values are within a predetermined range of infrared reflectances; and

f) determining that said test strip is misidentified in the event said infrared reflectances from said test fields are outside of the predetermined range.

16. (original) The method of Claim 15 wherein said test strip is placed on a feed table.

17. (original) The method of Claim 15 wherein said reagents comprise leukocyte, glucose and albumin.

18. (original) The method of Claim 17 further comprising the step of aborting said method if said infrared reflectances for one or more of said reagents are not within said predetermined range.

19. (original) The method of Claim 15 wherein said test will be aborted if said test strip is more than about 0.020" from a central location on said feed table or if the test strip is incompletely inserted by more than about 0.050".

20. (original) The method of Claim 18 wherein the predetermined infrared reflectance range for leukocyte is from about 57.0 to about 73.0 percent infrared reflectance.

21. (original) The method of Claim 18 wherein the predetermined infrared reflectance range for glucose is from about 75.0 to about 90.0 percent infrared reflectance.

22. (original) The method of Claim 18 wherein the predetermined infrared reflectance range for albumin is from about 60.0 to about 75.0 percent infrared reflectance.

23. (previously presented) The method of Claim 15 wherein said range of wavelength value reflected from said test fields and said marker fields are read by moving said test strip and said reading means relative to each other.

24. (original) The method of Claim 15 wherein said feed table is movable in relation to said reading means and wherein said test strip is placed on said feed table and moved relative to said reading means so that the reading means can scan the marker fields.

25. (original) The method of Claim 15 wherein said reading means is capable of acquiring spatial and spectral reflectances across the length of said test strip.

26. (original) The method of Claim 15 wherein said information concerning said test strip is calibration information based on the particular batch from which said test strip was obtained.

27. (original) The method of Claim 15 wherein said information concerning said test strip relates to location of reactive areas, critical times, strip age and strip reactivity.

28. (original) The method of Claim 15 in which said marker fields comprise bars that are substantially parallel to each other and are substantially perpendicular to the longitudinal axis of the test strip.

29-43. (cancelled)